



ARMY RESEARCH DIVISION

Research Brief

Managing the Army's Arsenals and Ammunition Plants

The Army has a large industrial base that consists, in part, of 11 contractor-operated and 3 government-operated plants that make ammunition and 2 government-operated arsenals that make ordnance items such as gun tubes for artillery pieces and tanks. These facilities provide the Army more capacity than it needs or believes it will need, so a portion of this industrial base is underused or mothballed. Further, much of the equipment in these plants is old, obsolete, and expensive to operate. Finally, manufacturing is a commercial function that is peripheral to the Army's inherently governmental functions and one uncommon to Western armed forces and even governments. In fact, the Army already spends most of its ammunition dollars in completely commercial plants. The Army asked RAND Arroyo Center to assess options for managing these facilities. Drawing on data current in fiscal year 2001 (FY01), Arroyo Center researchers carried out that assessment and report their results in *Rethinking Governance of the Army's Arsenals and Ammunition Plants*.

WHAT THE RESEARCHERS DID AND RECOMMENDED

The Arroyo Center research strategy consisted of formulating a strategic vision for the Army's industrial base and gaining the Army's agreement with that vision:

Convert the organic base to a responsive, innovative, efficient manufacturing base capable of meeting national security requirements while relying to the maximum practical extent on the inherent advantages of competition and private ownership of capital.

Next, researchers considered options for the best way to realize that vision. They considered four:

- Privatize facilities.
- Create a federal government corporation.¹

- Consolidate facilities and declare unneeded plants excess.
- Invest in new facilities on multifunction installations.

In the end, Arroyo Center researchers recommended a mixed strategy. For the ammunition plants, they recommended that the Army attempt to privatize 10 of the 11 plants that contractors operate. (The Army does not own the real estate of the eleventh contractor-operated plant, so it was excluded from the recommendation.) They also recommended that the Army retain the three government-operated plants. For the two arsenals, they recommended that the Army create a federal government corporation either as an end state or as a step toward privatization.² This approach would allow the arsenals to continue to meet the Army's needs while using commercial work to absorb their considerable excess capacity.

WHAT DOES THE GOVERNMENT GET?

This mixed strategy provides a number of benefits. First, it frees senior Army leaders from carrying out tasks for which they have no particular expertise and puts those tasks into the hands of those who do. The leaders can then focus their attention on matters directly related to their main responsibilities. Second, the arsenals and ammunition plants would now be subject to market forces, which should foster innovation and efficiency. Third, the Army saves money. Over the short term (through FY09), the researchers estimated savings ranging from \$525 million to over \$1 billion. Long-term savings (through FY22) range from \$900 million to \$3.3 billion.³

Savings result from different sources. In the ammunition plants, they stem from lower costs for ammunition due to better production methods and greater competition, and revenue from the sale of the plants. Savings in the case of the arsenals accrue primarily from bringing in commercial work-

¹Federal government corporations operate at the boundary between the public and private sectors and have characteristics of both. They are relatively common; Congress has created about one a year since World War II. Examples include the Tennessee Valley Authority and the U.S. Enrichment Corporation.

²Full privatization could be indefinitely delayed should some overriding reason for continuance under federal control be recognized.

³The low end of the savings range was achieved with conservative assumptions about the future ammunition market, savings associated with enhanced competition and other costs. The high end made more optimistic assumptions about these variables.

load to occupy the labor force fully, so that its costs for each unit of output become closer to what private industry achieves.

The recommended strategy carries the added benefit of retaining work and employment at current locations. Further, placing assets in private hands actually strengthens incentives to use the assets more fully, potentially increasing employment and economic growth where the plants are located.

WHAT ABOUT RISK?

Any proposal of this scope faces uncertainty and thus risk. For example, the estimates about the revenues generated from the sale of the ammunition plants and future ammunition prices may turn out to be wrong. Arroyo Center researchers rated that risk as modest. Congress oversees the General Services Administration, the organization that would sell the ammunition plants. Plants would be sold in conjunction with contracts to produce ammunition for at least five years. If a proposed sale would not result in a fair market price, either the GSA or the Congress would not approve it. Similarly, if the competitive pressures during the divestiture do not generate reasonable offers for future ammunition prices, the Army can retain the plants and perhaps later consolidate them, an option inferior to privatization.⁴

The risk in making the arsenals a federal government corporation is similarly small. If the federal government corporation cannot move all the way toward industrial labor rates, even a partial movement saves the Army money. Likewise, if it cannot attract as much commercial business as envisioned, even some work leaves the Army financially better off.

Another risk that has been cited is that buyers would be reluctant to bid on the plants because insurance, particularly in the current environment of heightened threats of terror-

ism, might be unavailable or prohibitively expensive. But since the Army is self-insured now, it could simply agree to indemnify the purchasers and would be no worse off than at present.

Finally, there is a risk that the United States will not have the capacity to manufacture sufficient quantities of ammunition during or after future national emergencies. The Arroyo Center researchers rated this risk as low and noted that as currently configured, the Army's industrial base lacks the flexibility to respond efficiently to such emergencies. In a more privatized industrial base, the degree of manufacturing responsiveness required can be assessed and contracted for on a periodic and routine basis.

WHAT ABOUT COSTS?

Implementing the recommended strategy will incur certain costs, but these have been factored into the economic analysis that generated the savings estimates. One cost that does not change as a result of privatization is the one associated with environmental cleanup. Under the Arroyo Center's proposal, the property transfers as "excess to ownership but not excess to need." Transferring the property this way means that the Army, which retains the environmental liability, may continue to conduct the environmental cleanup at the programmed rate, hence avoiding any budgetary or programmatic increases. This process differs sharply from the one associated with closures done under Base Realignment and Closure (BRAC) authority. Under BRAC, all environmental remediation must be completed before the property transfers.

The process of moving this portion of the Army's industrial base into the private sector represents a sweeping change, and it will be neither simple nor, in all likelihood, quick. As the savings estimates show, however, the benefits to the Army are substantial.

⁴Consolidation is likely to result in large up-front costs of relocating production lines from closing facilities, and the Army is unlikely to realize any revenue from the sale of excess plants that cannot be sold as going concerns. Further, consolidation inevitably entails the transfer of jobs from one geographic area to another. The proposed strategy avoids these drawbacks.

RAND research briefs summarize research that has been more fully documented elsewhere. The research summarized in this brief was carried out in the RAND Arroyo Center; it is documented in *Rethinking Governance of the Army's Arsenals and Ammunition Plants*, by W. Michael Hix, Ellen M. Pint, John Bondanella, Bruce Held, Michael Hynes, David Johnson, Art Pregler, Mike Stollenwerk, and Jerry Sollinger, MR-1651-A, 2003, 318 pp., \$30.00, ISBN: 0-8330-3322-0, available from RAND Distribution Services (Telephone: toll free 877-584-8642; FAX: 310-451-6915; or Internet: order@rand.org). Abstracts of all RAND documents may be viewed on the World Wide Web (<http://www.rand.org>). Arroyo Center URL: <http://www.rand.org/organization/ardl>. Publications are distributed to the trade by NBN. RAND® is a registered trademark. RAND is a nonprofit institution that helps improve policy and decisionmaking through research and analysis; its publications do not necessarily reflect the opinions or policies of its research sponsors.

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